MARKER CODE

Pacific Community
Communauté du Pacifique
EQAP

Student Personal Identification Number						

South Pacific Form Seven Certificate

AGRICULTURE

2023

QUESTION and ANSWER BOOKLET

Time allowed: Three hours

(An extra 10 minutes is allowed for reading this paper.)

INSTRUCTIONS

1. Write your **Student Personal Identification Number (SPIN)** in the space provided on the top right-hand corner of this page.

2. Answer **ALL QUESTIONS**. Write your answers in the spaces provided in this booklet. For **Multiple Choice Questions**, circle the letter that represents the **BEST** answer.

3. If you need more space for answers, ask the Supervisor for extra paper. Write your SPIN on all extra sheets used and clearly number the questions. Attach the extra sheets to the appropriate places in this booklet.

Major Learning Outcomes (Achievement Standards)	**Skill Level & Number of Questions**				**Weight/ Time**
	Level 1 ***Uni-structural***	**Level 2** ***Multi-structural***	**Level 3** ***Relational***	**Level 4** ***Extended Abstract***	
Strand 1: Production Management Demonstrate knowledge application and critical evaluation of skills of production management of a locally produced animal primary product and a locally produced plant primary product.	2	4	3	2	27% 69 min
Strand 2: Sustainable Primary Production Demonstrate knowledge application and critical evaluation of primary production practices that ensure sustainable production.	2	3	3	3	29% 75 min
Strand 3: Marketing in Primary Production Demonstrate knowledge application and critical evaluation of local and export primary production and the influence of market controls.	2	1	2	1	14% 36 min
TOTAL	**6**	**8**	**8**	**6**	**70% 180 min**

Questions in this examination require you to refer to primary products from your own country.

Check that this booklet contains pages 2–21 in the correct order and that none of these pages are blank.

HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

STRAND 1: PRODUCTION MANAGEMENT

Assessor's use only

1.1 **Select <u>one primary product</u> (either plant or animal) that is locally produced in your country to answer this question.**

Name of your country: _____

Primary product: _____

Crops and livestock thrive when given optimum conditions for growth and living.

Identify **one** factor that should be considered when selecting a suitable site for producing the primary product that you have chosen.

_____

_____

_____

Unistructural	
1	
0	
NR	

1.2 Proper crop management is important for crop yield in relation to the quality and quantity of crops that are produced. The diagram below illustrates a management practice in crop production.

Source: https://media.istockphoto.com/id/1297093841/photo/tomato-plants-with-ripe-tomatoes-growing-outdoors-in-england-uk.jpg?s=612x612&w=0&k=20&c=xIADDQiRspzpR_9J8MprUeOyvquLYiXa7pOEWBPqeaI=

Name the management practice that is illustrated above.

_____

_____

_____

Unistructural	
1	
0	
NR	

Assessor's use only

1.3	A schedule of operation comprises orderly activities that are carried out on the farm and is crucial in any agricultural enterprise. Describe the process of raising seedlings that the farmer would undertake during crop production. _____ _____ _____	**Multistructural** 2 1 0 NR
1.4	Access to land is crucial for farmers to engage in agricultural activities. Without land, farming cannot be carried out. List **two** ways that farmers can obtain land for farming. _____ _____ _____	**Multistructural** 2 1 0 NR
1.5	Post-harvest is a process carried out after harvesting. The diagram below illustrates a post-harvest technique in a manufacturing factory. *Source: https://www.dairyfoods.com/ext/resources/DF/2014/January/img1-slide1.jpg?t=1389277770&width=696* Describe how the post-harvest technique illustrated above is carried out. _____ _____ _____	**Multistructural** 2 1 0 NR

Assessor's use only

1.6	Productivity in livestock farming will depend on the type of breed selected. List **two** criteria that a farmer would look for in selecting a suitable breed of livestock to be reared on the farm. _____ _____ _____ _____	**Multistructural** 2 1 0 NR
1.7	**Select <u>one primary product</u> (either plant or animal) that is locally produced in your country to answer this question.** Primary product: _____ Effective management of crop and livestock production involves the timely implementation of specific practices within given time frames to enhance productivity. Explain the importance of timing in the management of the selected primary product and provide reasons to support your argument. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 2 1 0 NR

Assessor's use only

1.8 Farmers in a community have been planting most of the crops on their farms by using seeds. They have now decided to practice the vegetative method of plant propagation.

As a horticulturalist, advise the farmers on the differences between sexual and asexual methods of plant propagation and suggest the better method to use.

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

1.9 **To answer question 1.9, choose one planting material from the list below.**

Some examples of planting materials include:

- Seeds
- Seedlings
- Stem cuttings
- Corms
- Bulbs
- Suckers

Explain how the availability of your chosen planting material will have an impact on the schedule of operations.

Planting Material: _____

Impact: _____

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

1.10 The picture below shows harvested cassava from a farmer's plot, which has been left in the sun while waiting to be taken to the market.

Source: https://guardian.ng/features/agro-care/how-to-get-optimum-yield-from-cassava-cultivation/

Critically evaluate the post-harvest technique depicted in the picture above and provide recommendations on how it can be improved to avoid negative impacts on the quality.

Assessor's use only

1.10
Cont'd

Extended Abstract	
4	
3	
2	
1	
0	
NR	

Assessor's use only

1.11 Farmers often rely on their traditional knowledge and experience to operate their farms, but utilising technical expertise can result in better production.

Evaluate how technical expertise benefits farmers in different stages of their schedule of operation with specific examples.

Extended Abstract	
4	
3	
2	
1	
0	
NR	

STRAND 2: SUSTAINABLE PRIMARY PRODUCTION

Assessor's use only

2.1 Modern farmers have been enlightened with knowledge and skills in becoming resilient towards the effects of climate change and ensuring sustainability.

The diagram below illustrates an example of sustainable agriculture.

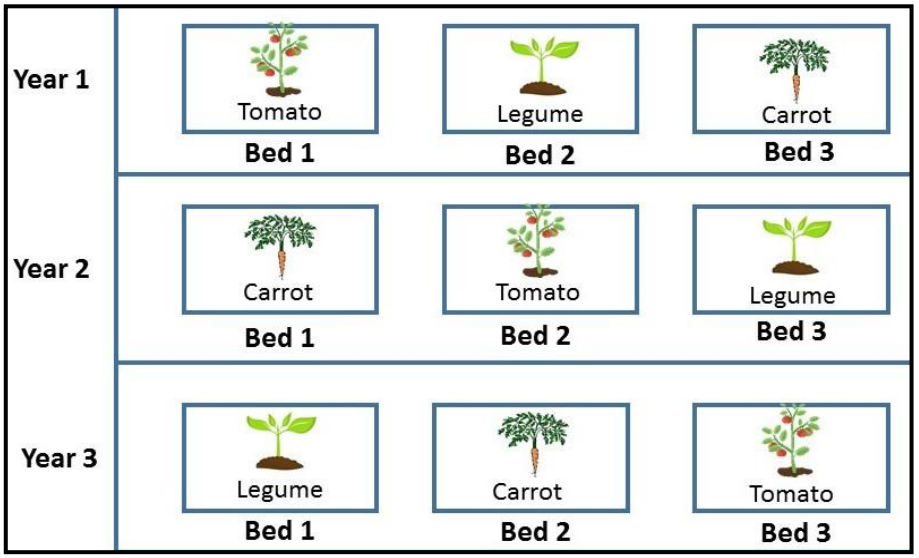
Source: https://avisomo.com/the-potential-for-renewable-energy-in-vertical-farming/

State the type of sustainable agricultural practice shown above.

_____

Unistructural	
1	
0	
NR	

2.2 Practising better cropping methods maintains food security and sustainability. The diagram below illustrates a cropping method practised by farmers.



Source: https://nwdistrict.ifas.ufl.edu/hort/files/2019/03/Gardening-in-the-Panhandle-Article-2.jpg

Name the cropping method shown above.

_____

Unistructural	
1	
0	
NR	

Assessor's use only

2.3	Waste comes in many forms and can have negative impacts on the environment. Livestock waste is one example that can contribute to pollution and harm natural surroundings. Describe **one** method or technique a farmer might use to manage livestock waste on their farm. _____ _____ _____ _____ _____	**Multistructural** 2 ☐ 1 ☐ 0 ☐ NR ☐
2.4	Pathogens are disease-causing organisms that live and survive in non-hygienic surroundings. List **two** hygiene practices that are important to be carried out on the farm to prevent diseases and sustain long-term production for farmers. _____ _____ _____ _____ _____	**Multistructural** 2 ☐ 1 ☐ 0 ☐ NR ☐
2.5	Organic farming practices have gained popularity in recent years due to concerns about the environmental and health impacts of conventional farming techniques. List **two** examples of organic farming practices that can be implemented on a school farm. _____ _____ _____ _____ _____	**Multistructural** 2 ☐ 1 ☐ 0 ☐ NR ☐

Assessor's use only

2.6	A farmer in your community has 5 acres of loamy sandy soil that is planted with cabbages and lettuces. The farmer has approached you with a problem where the crops are wilting and dying out due to prolonged drought. Using your knowledge of sustainable water management practices, analyse the situation and provide advice to the farmer on the cause of the problem and recommendations for sustainable solutions to maintain their crop production. Use examples to justify your answer.	

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

2.7 Hereditary material – also known as germplasm or genetic stock – is crucial for maintaining long-term agricultural productivity. However, natural disasters can severely impact genetic resource conservation and farmers' livelihoods.

Explain how the Ministry of Agriculture in your country can advise farmers on managing genetic resources to ensure sustainable production in the aftermath of a natural disaster.

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

2.8 **Choose a locally produced primary product (crop or livestock), a pest that affects it, and a suitable pest control mechanism.**

Crop or Livestock: _____

Pest: _____

Pest Control: _____

Explain why your chosen pest control mechanism for the selected primary product is the most suitable.

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

2.9	Human activities, primarily the burning of fossil fuels, have been the main driver of climate change and the resulting heat-trapping gases. In response, green jobs have been created to reduce the impacts of climate change on the environment. As an environmentalist raising awareness about climate change adaptation in your community, evaluate the types of green jobs available in agriculture and their significance. Additionally, share your recommendations with neighbouring communities.	

Extended Abstract	
4	
3	
2	
1	
0	
NR	

Assessor's use only

2.10	Seeds are the essential input for farmers and without them there can be no crops. You have been tasked to visit commercial farmers in your locality to collect information about issues that are related to the long-term usage of seeds. Discuss **one** of these issues and recommend **one** way to resolve it to ensure long-term production.	

Extended Abstract	
4	
3	
2	
1	
0	
NR	

Assessor's use only

2.11 Agricultural pollution refers to biotic and abiotic by-products of farming practices that result in contamination or degradation of the environment and surrounding ecosystems.

Evaluate the types of pollution in your locality and recommend the most cost-effective control mechanism for these types of pollution in order to maintain sustainable production on the farm.

Extended Abstract	
4	
3	
2	
1	
0	
NR	

STRAND 3: MARKETING IN PRIMARY PRODUCTION

Assessor's use only

3.1

Source: https://businessjargons.com/international-marketing.html

State a role of international marketing in your country.

_____

_____

_____

Unistructural	
1	
0	
NR	

Use the information below to answer questions 3.2 and 3.3.

Select <u>one primary product</u> (either plant or animal) that is locally produced in your country.

Name of your country: _____

Primary product: _____

3.2

Growers' organisations assist farmers in sharing knowledge and skills about farming and also in the marketing of primary products.

Name the growers' organisation in your country that assists farmers for local and export markets for your selected primary product.

_____

_____

_____

Unistructural	
1	
0	
NR	

Assessor's use only

3.3	Supply is a fundamental economic concept that describes the total amount of a specific good or service that is available to consumers. List **two** factors that affect the supply of your selected primary product. _____ _____ _____ _____	**Multistructural** 2 ☐ 1 ☐ 0 ☐ NR ☐
3.4	**Select <u>one primary product</u> (either plant or animal) that is locally produced in your country to answer this question.** Name of your country: _____ Primary product: _____ Seasonality is when crops grow at certain times of the year or during certain seasons, e.g., mangoes are usually in the market during Christmas time. Using a graph, explain how seasonality affects the supply and price of your selected primary product. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	**Relational** 3 ☐ 2 ☐ 1 ☐ 0 ☐ NR ☐

Assessor's use only

3.5	Farmers in developing countries face competition from imported agricultural products that may be cheaper and more readily available to consumers. Explain the impact of an imported agricultural product on primary production in your country and propose strategies that farmers can use to compete in this market.	

Relational	
3	
2	
1	
0	
NR	

Assessor's use only

3.6 Market access refers to the ability of an entrepreneur or country to sell goods and services locally and across borders.

Most farmers in local communities lack information on the types of goods to produce, the availability of the market, and market accessibility.

As an Agriculture Extension Officer in your locality, discuss **one** strategy that you would use for managing and improving market access for primary production. Use examples to support your answer.

Extended Abstract	
4	
3	
2	
1	
0	
NR	

THE END